

STATE OF CALIFORNIA  
STATE WATER RESOURCES CONTROL BOARD

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In the Matter of Water Quality Certification For the

**TRI-DAM PROJECT  
BEARDSLEY/DONNELLS HYDROELECTRIC PROJECT**

**FEDERAL ENERGY REGULATORY COMMISSION PROJECT NO. 2005**

SOURCES: Middle Fork of the Stanislaus River and Tributaries

COUNTY: Tuolumne County

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**WATER QUALITY CERTIFICATION FOR FEDERAL PERMIT OR LICENSE**

BY THE EXECUTIVE DIRECTOR:

The **TRI-DAM PROJECT** has applied to the Federal Energy Regulatory Commission (FERC) for a new license for the Beardsley/Donnells Hydroelectric Project (Project). The Tri-Dam Project, owned by the Oakdale and South San Joaquin Irrigation Districts, is the Licensee of the Project. The Project is located on the Middle Fork of the Stanislaus River in the Stanislaus National Forest near the town of Strawberry. The Project includes the Donnells development and the Beardsley development. The Donnells development includes the Donnells Dam and Reservoir (capacity of 64,325 acre feet), a tunnel and penstock, and a powerhouse with a capacity of 84.6 megawatts. The Beardsley development includes Beardsley Dam and Reservoir (capacity of 97,802 acre feet), a tunnel and penstock, a powerhouse with a capacity of 9.99 megawatts, and the Beardsley Afterbay and Dam.

1. The Federal Clean Water Act (33 U.S.C. §§ 1251-1387) was enacted “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” (33 U.S.C. § 1251(a).) Section 101 of the Clean Water Act (33 U.S.C. § 1251 (g)) requires federal agencies to “co-operate with the State and local agencies to develop comprehensive solutions to prevent, reduce and eliminate pollution in concert with programs for managing water resources.”
2. Section 401 of the Clean Water Act (33 U.S.C. §1341) requires every applicant for a federal license or permit which may result in a discharge into navigable waters to provide the licensing or permitting federal agency with certification that the project will be in compliance with specified provisions of the Clean Water Act, including water quality standards and implementation plans promulgated pursuant to section 303 of the Clean Water Act (33 U.S.C. § 1313). Clean Water Act section 401 directs the agency responsible for certification to prescribe effluent limitations and other limitations necessary to ensure

compliance with the Clean Water Act and with any other appropriate requirement of state law. Section 401 further provides that state certification conditions shall become conditions of any federal license or permit for the project. The State Water Resources Control Board (State Water Board) has delegated this function to the Executive Director by regulation. (Cal. Code Regs., tit. 23, § 3838, subd. (a).)

3. The California Regional Water Quality Control Boards have adopted, and the State Water Board has approved, water quality control plans (basin plans) for each watershed basin in the State. The basin plans designate the beneficial uses of waters within each watershed basin and water quality objectives designed to protect those uses. Section 303 of the Clean Water Act requires the states to develop and adopt water quality standards. (33 U.S.C. § 1313.) The beneficial uses together with the water quality objectives that are contained in the basin plans constitute State water quality standards under section 303.
4. The basin plan for the Central Valley-Sacramento/San Joaquin River Basins identifies municipal and domestic supply, irrigation, stock watering, power, warm and cold freshwater habitat, contact and non-contact recreation, canoeing and rafting and wildlife habitat as beneficial uses of the Stanislaus River above New Melones Reservoir. Protection of the instream beneficial uses identified in the basin plan requires maintenance of adequate instream flows as well as effluent limitations and other limitations on discharges of pollutants from point and nonpoint sources to the Middle Fork Stanislaus River and its tributaries.
5. The State Water Board has reviewed and considered: (a) the Tri-Dam Project's final FERC License Application; (b) comments on the final License Application by agencies and interested parties; (c) the U.S. Forest Service Final 4(e) Conditions; and (d) the FERC Final Environmental Impact Statement prepared pursuant to the National Environmental Policy Act for the Stanislaus River Projects. Further, the State Water Board has considered the basin plan, the existing water quality conditions and project-related controllable factors.
6. The State Water Board, as responsible agency, has reviewed and considered the proposed project and conditions incorporated into the project to protect the environment pursuant to the California Environmental Quality Act (CEQA). The Tri-Dam Project, as lead agency, prepared a Mitigated Negative Declaration for this Project (State Clearinghouse Number 2004102061), adopted on November 18, 2004. The State Water Board will file a Notice of Determination within five days from the issuance of this order.

ACCORDINGLY, BASED ON ITS INDEPENDENT REVIEW OF THE RECORD, THE STATE WATER BOARD CERTIFIES THAT THE OPERATION OF THE BEARDSLEY/ DONNELLS HYDROELECTRIC PROJECT BY THE TRI-DAM PROJECT UNDER A NEW LICENSE ISSUED BY FERC FOR TRI-DAM'S PROPOSED PROJECT will comply with sections 301, 302, 303, 306 and 307 of the Clean Water Act, and with applicable provisions of state law provided the Tri-Dam Project complies with the following terms and conditions:

1. Licensee shall coordinate Project operations with operations of the Spring Gap-Stanislaus Project (Project No. 2130) consistent with the Coordinated Operations Agreement among the Oakdale and South San Joaquin Irrigation Districts, Tri-Dam Power Authority, and Pacific Gas and Electric Company. Any revisions or amendments to the Coordinated Operations Agreement shall be filed with the Chief of the Division of Water Rights (Division). Licensee shall notify the Division in advance if it is unable to coordinate its operation to enable Pacific Gas and Electric Company to meet the flow conditions of the Spring Gap-Stanislaus Project license and water quality certification, including minimum daily flows, supplemental flows, and recreation streamflow events. After notice and opportunity for hearing, the State Water Board may modify terms and conditions in this certification to address project coordination necessary to protect water quality.
2. Nothing in this certification shall be construed as State Water Board approval of the validity of any consumptive water rights, including pre-1914 claims, referenced in the Coordinated Operations Agreement or elsewhere. The State Water Board has separate authority under the Water Code to investigate and take enforcement action as necessary to prevent any unauthorized or threatened unauthorized diversions of water.
3. Licensee shall notify the Chief of the Division in advance if flows from the Sand Bar Project are to be reduced. After notice and opportunity for hearing, the State Water Board may modify terms and conditions in this certification to address water quality in the Sand Bar Reach.
4. Beginning the first full calendar year after license issuance, Licensee shall make a reasonable effort to return large woody debris to the Middle Fork Stanislaus River immediately downstream of Donnell's Dam by allowing the large wood to pass through the Donnell's Dam spillway during spill periods. Large woody debris, as used in this measure, refers to downed, dead or dying wood at least 30 feet long (assumes a piece of wood that would be at least one-half bankfull in length if it occurred in Donnell's Reach). If spills are not adequate to pass the large woody debris and Licensee collects the large woody debris from Donnell's Reservoir, Licensee shall consult with the Forest Service and the Chief of the Division concerning alternative means to return the large woody debris to the river.
5. Each year from February through May, Licensee shall determine water year type, based on the California Department of Water Resources (DWR) forecast for annual unimpaired inflow into New Melones Reservoir as set forth in DWR's Bulletin 120, *Water Conditions in California* (see following table). Licensee shall use this determination in implementing conditions of this certification that are dependent on water year type. From February through April, the water year type shall be based on DWR's forecast for the month and shall apply from the 10<sup>th</sup> of the month through the 9<sup>th</sup> of the next month. From May 10 through February 9 of the following year, the water year type shall be based on DWR's May 1 forecast. Licensee shall maintain a five-year record of its water year type determinations, and shall provide this record to the State Water Board annually.

***Water Year Types for the Beardsley/Donnells Project***

<b><i>Water Year Type</i></b>	<b><i>DWR Forecast Annual Unimpaired Inflow into New Melones Reservoir (acre-feet)</i></b>
Critically Dry	Less than or equal to 350,000
Dry	Greater than 350,000 and less than or equal to 676,000
Normal	Greater than 676,000 and less than 1,585,000
Wet	Greater than or equal to 1,585,000

6. Beginning as soon as reasonably feasible and no later than six months after license issuance, Licensee shall increase or decrease regulated minimum Daily Flows at a stream stage change (ramping) rate of 6 inches or less per hour. The point of compliance shall be at a flow measurement gauge installed and maintained by Licensee at or immediately downstream of Donnells Dam. The ramping rate may be temporarily modified if required by equipment malfunction, emergency or law enforcement activity, or electric system emergencies beyond the control of Licensee. The licensee shall notify the Chief of the Division of any temporary modifications. Where facility modification is required for Licensee to provide the specified ramping rate, Licensee shall complete such modifications as soon as reasonably practicable and no later than three years after license issuance. Prior to such required facility modifications, Licensee shall make a good faith effort to provide the specified ramping rate within the capabilities of the existing facilities. The licensee shall notify the Chief of the Division if it is unable to meet the ramping rates prior to facility modification.
7. Beginning no more than six months after license issuance, Licensee shall maintain in Donnells Reach minimum Daily Flows in Normal, Dry, Critically Dry and Wet water years, and Supplemental Flows in Normal, Dry, and Wet water years. Donnells Reach is the 8.1 mile-long reach of the Middle Fork Stanislaus River extending from Donnells Dam to Hell's Half-Acre Bridge. Minimum Daily Flows may consist of any combination of regulated flow releases from Donnells Dam and spill at Donnells Dam. Supplemental Flows may consist of any combination of regulated flow releases from Donnells Dam, spill at Donnells Dam, and natural accretion in Donnells Reach.

***Minimum Daily Flows***

Licensee shall maintain in Donnells Reach the minimum Daily Flow as specified in the following table. The specified minimum Daily Flow is the minimum mean flow over a continuous 24-hour period. Instantaneous flow may deviate below the specified minimum Daily Flow by up to 10 percent or 4 cubic feet per second (cfs), whichever is less, so long as the minimum mean daily flow requirement is met. The minimum Daily Flows shall be measured at a gauge installed and maintained by Licensee at or immediately downstream of Donnells Dam.

***Minimum Daily Flow schedule for the Donnell's Reach (in cubic feet per second)***

<b><i>Month</i></b>	<b><i>Water Year Type</i></b>		
	<b><i>Normal</i></b>	<b><i>Critically Dry and Dry</i></b>	<b><i>Wet</i></b>
October 1-31	40	25	45
November 1-30	40	25	40
December 1-31	40	25	40
January 1 - February 9	40	25	40
February 10 - March 9	40	25	50
March 10 - April 9	40	25	50
April 10 - May 9	40	25	50
May 10 - May 31	40	25	50
June 1 - 30	40	25	50
July 1- 31	45	25	60
August 1 - 31	45	25	60
September 1 - 30	40	25	50

***Minimum Supplemental Flows***

In order to assure that an adequate spring peak flow event occurs each year, Licensee shall, in addition to the minimum Daily Flows specified above, maintain the minimum Supplemental Flows in the following table. The specified minimum Supplemental Flow for a week is the average flow for the week, with instantaneous flows at least equal to the specified minimum Supplemental Flow for the lower of the two adjoining weeks. Licensee is not required to provide minimum Supplemental Flows in Donnell's Reach in Critically Dry Water Years. Minimum Supplemental Flows shall be measured at the existing United States Geological Survey gaging station at Hell's Half-Acre.

The minimum Supplemental Flow period shall be 13 continuous weeks in length. For years in which Donnell's Reservoir is forecast to spill, Licensee may initiate the Supplemental Flow period any time between March 1 and May 1 to best coincide with the period of spill ("Date Trigger"). For years in which Donnell's Reservoir is forecast not to spill, Licensee shall initiate the 13-week-long Supplemental Flow period at a time between March 1 and May 1 so that the peak Supplemental Flow will occur approximately two weeks after the forecast peak inflow to Donnell's Reservoir ("Peak Flow Trigger").

***Minimum Supplemental Flow schedule for the Donnell's Reach <sup>1</sup> (in cubic feet per second)***

<b><i>Week</i></b>	<b><i>Water Year Type</i></b>		
	<b><i>Normal</i></b>	<b><i>Dry</i></b>	<b><i>Wet</i></b>
1	5	5	5
2	10	10	10
3	25	25	25
4	35	35	35
5	75	75	75
6	125	125	125
7	200	200	200
8	325	325	325
9	175	175	175
10	95	95	95

<i>Week</i>	<i>Water Year Type</i>		
	<i>Normal</i>	<i>Dry</i>	<i>Wet</i>
11	55	55	55
12	25	25	25
13	10	10	10

<sup>1</sup>Minimum Supplemental Flows are additive to the specified minimum Daily Flows.

Licensee shall consult with the United States Forest Service (Forest Service), Chief of the Division, California Department of Fish and Game (CDFG), United States Fish and Wildlife Service (USFWS) and other interested parties to develop a recommendation for a “Water Temperature Trigger” to function in combination with the Date and Peak Flow Triggers described above for initiating Supplemental Flows in years that Donnell’s Reservoir is forecast not to spill. The Water Temperature Trigger shall not apply for years in which Donnell’s Dam is forecast to spill. The Water Temperature Trigger shall be developed based on available information. Within one year of license issuance, Licensee shall file the Water Temperature Trigger recommendation with the FERC, including evidence of consultation, and shall implement the Water Temperature Trigger required by the Forest Service and Division Chief. Use of the Water Temperature Trigger shall be based on water temperatures measured using a continuous water temperature recorder installed and maintained by Licensee upstream of Donnell’s Powerhouse. In the interim and while Licensee develops the Temperature Trigger, Licensee shall implement the minimum Supplemental Flows as specified without the Temperature Trigger.

Licensee may meet the minimum Supplemental Flow requirement with flow magnitudes in excess of those specified; however, the rate of decline in flow shall be no steeper than the specified decline for Supplemental Flows any time actual streamflow at Hell’s Half-Acre is less than the peak magnitude specified for the Supplemental Flow. Exceptions to the decline rate will be allowed when natural events, such as storms and variation in rate of snowmelt, cause short duration (not greater than one week in length) flow fluctuations that exceed the flows specified for the declining limb of the Supplemental Flow. Licensee shall make downward adjustments in Supplemental Flow in approximately equal steps to achieve a smooth decline.

The requirements of this measure may be temporarily modified if required by equipment malfunction, emergency or law enforcement activity, or electrical system emergencies beyond the control of Licensee. In the event of such temporary modifications, Licensee shall within 24 hours of a modification, notify, with confirmation of receipt, the Chief of the Division.

In Critically Dry water years, Licensee may propose modifications to the specified minimum Daily Flows. If such modifications are proposed, Licensee shall consult with the Forest Service, Chief of the Division, and CDFG, and others who request consultation as to the possible justifications for such modifications of the minimum Daily Flows specified for Dry and Critically Dry water years. Licensee shall maintain the specified minimum Daily Flows until such modifications are approved by the responsible agencies and the Commission.

Where facility modification is required to implement the specified minimum Daily Flows or Supplemental Flows, Licensee shall complete such modifications as soon as reasonably practicable and no later than three years after license issuance. Prior to completion of such required facility modifications, Licensee shall make a good faith effort to provide the specified minimum Daily Flows and Supplemental Flows within the capabilities of the existing facilities.

8. Within six years after license issuance and in consultation with the Forest Service, Division, and CDFG, Licensee shall perform a study of trout density in the Middle Fork Stanislaus River from Donnell's Dam to Beardsley Reservoir. The purpose of the study shall be to investigate: (a) trout density in the Donnell's Reach in response to the 2001 surveys that identified relatively low trout populations in the Hell's Half-Acre area as compared to other areas of the stream reach; and (2) if needful, if the Project could improve trout density in this area. The field survey portion of the study shall be done at the same time that the CDFG routinely surveys trout density in the Wild Trout portion of the Middle Fork Stanislaus River (usually every three years), and shall use sampling methods similar to those used by the CDFG. The study shall include sampling at the same sites as the 2001 survey: Hell's Half-Acre, and near Donnell's Dam. Based on the study, Licensee shall prepare a study report including objectives, methods, results (including incidental observations of otters), recommended reasonable resource management measures where appropriate, and a schedule of implementation. Licensee shall provide a draft of the final report to the Chief of the Division for review, comment and approval. Licensee shall implement those resource management measures required by the Division Chief.
9. Beginning as soon as reasonably feasible and no later than one year after license issuance, Licensee shall annually make recreation streamflow information available to the public. Unless otherwise noted, the flow information shall be available to the public via the internet. The flow information protocols listed below may be modified upon mutual agreement of Licensee and the Chief of the Division.

Licensee shall make the following information available as noted:

- By April 10, a preliminary forecast of the water year type and the initiation date and duration of anticipated spill or Supplemental Flows at Donnell's Dam. Licensee shall update the information by May 10, and update weekly thereafter through the duration of the spill period.
- From May 1 through October 31, the hourly average streamflow for the Middle Fork Stanislaus River as measured at the U. S. Geological Survey's streamflow gaging station at Hell's Half-Acre (USGS Gage 11292700). Licensee shall post the flow information at 9:00 AM, Noon and 4:00 PM daily for the current day and the prior seven days. Streamflows may be rounded up to the nearest 50 cfs, and all plots and tables showing this data shall be labeled, "THESE PROVISIONAL DATA HAVE NOT BEEN REVIEWED OR EDITED AND MAY BE SUBJECT TO SIGNIFICANT CHANGE."

- Licensee shall install and maintain one simple staff gauge/depth indicator in the Middle Fork Stanislaus River downstream of Donnell's Dam near the spillway channel outlet. Licensee shall make a good faith attempt to locate the staff gauge/depth indicator near a location used for whitewater boating put-in, and, if possible, angling access points, so it is easily accessible for public reference. Licensee shall provide at the staff gauge/depth indicator a means by which to reasonably correlate staff gauge/depth indicator readings to cubic feet per second.
10. Within one year from the issuance of the FERC license, Licensee shall submit for review and approval by the Chief of the Division plans to stabilize the adit No. 2 spoils pile. The plan must include specific measures to protect water quality in Lily Creek. Upon approval, Licensee shall implement the plan.
  11. Within one year from the issuance of the FERC license, Licensee shall submit for review and approval by the Chief of the Division the site development plan for the removal, restoration, and rehabilitation for the Beardsley Campground. The plan must include specific measures to protect water quality during construction. Upon approval, Licensee shall implement the plan.
  12. Within six months from the issuance of the FERC license, Licensee shall provide and maintain boating access to the Middle Fork Stanislaus River directly below Donnell's Dam. This may be done through modification of the fence near the caretaker's cabin to allow boats to pass through the gate.
  13. Within one year of FERC license issuance, Licensee shall submit to the Chief of the Division a copy of the Bald Eagle and Peregrine Falcon management plan. Licensee shall submit to the Chief of the Division any monitoring reports for Bald Eagles and Peregrine Falcons prepared during the life of the FERC license.
  14. This certification is contingent on compliance with all applicable requirements of the Water Quality Control Plan for the Sacramento and San Joaquin River Basins, except as may be modified by the specific conditions of the certification.
  15. Licensee must submit to the Chief of the Division for prior review and written approval any change to the Beardsley/Donnell's Hydroelectric Project, including project operation that would have a significant or material effect on the findings, conclusions, or conditions of this certification.
  16. Notwithstanding any more specific conditions in this certification, the Project shall be operated in a manner consistent with all water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act. Licensee shall take all reasonable measures to protect the beneficial uses of water of the Middle Fork of the Stanislaus River and tributaries.
  17. The authorization to operate the Project pursuant to this certification is conditioned upon payment of all applicable fees for review and processing of the application for water quality



certification and administering the State's water quality certification program, including but not limited to timely payment of any annual fees or similar charges that may be imposed by future statutes or regulations for the State's reasonable costs of a program to monitor and oversee compliance with conditions of water quality certification.

18. This certification is not intended and shall not be construed to apply to issuance of any FERC license or FERC license amendment other than the FERC license specifically identified in Licensee's application for certification described above.
19. This certification does not authorize any act which results in the "taking" of a threatened or endangered species or any act which is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish & G. Code §§ 2050 - 2097) or the federal Endangered Species Act (16 U.S.C. §§ 1531 - 1544). If a "take" will result from any act authorized under this certification or water rights held by Licensee, Licensee shall obtain authorization for the take prior to any construction or operation of the Project. Licensee shall be responsible for meeting all requirements of the applicable Endangered Species Act for the Project authorized under this certification.
20. In the event of any violation or threatened violation of the conditions of this certification, the violation or threatened violation shall be subject to any remedies, penalties, process or sanctions as provided for under applicable state or federal law. For the purposes of section 401(d) of the Clean Water Act, the applicability of any State law authorizing remedies, penalties, process or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this certification. In response to a suspected violation of any condition of this certification, the State Water Board may require the holder of any federal permit or license subject to this certification to furnish, under penalty of perjury, any technical or monitoring reports the State Water Board deems appropriate, provided that the burden, including costs, of the reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. In response to any violation of the conditions of this certification, the State Water Board may add to or modify the conditions of this certification as appropriate to ensure compliance.
21. Any change to the operation of the Project that would have a significant or material effect on the findings, conclusions, or conditions of this certification must be submitted to the Chief of the Division of Water Rights for prior review and written approval.
22. This certification is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Water Code section 13330 and California Code of Regulations, title 23, division 3, chapter 28, article 6 (commencing with § 3867).
23. The State Water Board reserves authority to modify or revoke this certification if monitoring results indicate that continued operation of the project would violate water quality objectives or impair the beneficial uses of the Middle Fork Stanislaus River and tributaries.

24. The State Water Board may add to or modify the conditions of this certification, as appropriate, to implement any new or revised water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act.
25. The State Water Board may add to or modify the conditions of this certification as appropriate to coordinate the operations of this project with other water development projects, where coordination of operations is reasonably necessary to achieve water quality standards or protect beneficial uses of water.

ORIGINAL SIGNED BY

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Celeste Cantú  
Executive Director

Date: September 14, 2005